DEPARTMENT OF HORSE-BREEDING OPERATIONS.

ANNUAL ADMINISTRATION REPORT

OF THE

BOMBAY PRESIDENCY

FOR THE

OFFICIAL YEAR 1889-90.

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To

THE SECRETARY TO GOVERNMENT,
REVENUE DEPARTMENT,
Bombay.

Superintendent's Office,
Horse-breeding Operations,
Ahmednagar, 5th July 1890.

SIR,

I have the honour to submit, for the consideration of His Excellency the Governor in Council, the Annual Administration Report of the Department of Horse-breeding Operations in the Bombay Presidency and Beluchistán for the official year 1889-90.

I have the honour to be,
Sir,
Your most obedient Servant,
J. K. GRAINGER,
Superintendent, Horse-breeding Operations,
Bombay Presidency.

GOVERNMENT OF BOMBAY.

DEPARTMENT OF HORSE-BREEDING OPERATIONS.

ANNUAL ADMINISTRATION REPORT FOR THE OFFICIAL YEAR 1889-90.

My tours in the horse-breeding districts.

Ahmednagar, 9th April 1889.

1. I came here on the 8th April 1889, and found the stallions noted in the margin in good condition. I branded 6 mares for horse, 6 for pony, and rejected 5.

Model ...	... N. T. E.	Dogobert	... T. B. E.
Merrylegs ...	... Do.	Wisechild	... Do.
Altcar ...	... T. B. E.	Friendship	... Arab.
Adonis ...	... Do.	Sirdar ...	... Do.

Ráhuri, 10th April 1889.

2. I next went to Ráhuri and inspected the Government stallion "Allan Bane" and found him in good condition. I branded 2 mares for horse and 10 for pony. The mares were in low condition.

Yeola, 11th April 1889.

3. From Ráhuri I went to Yeola in the Násik District. Here I branded 10 mares for pony and rejected 15. Many of the mares were in poor condition.

4. I inspected the stallion "Pilgrim" and found him vicious and dangerous to the mares and syce and therefore recommended him to be castrated and sold on recovery. The new stable was nearly completed.

Málegaon, 13th April 1889.

5. I visited Málegaon on the 13th April 1889 and branded 8 mares for pony and rejected 6. The mares were a poor lot. I found the stallion "Cruiser" in good condition. He was removed to the new stable near the old fort.

Nándgaon, 15th April 1889.

6. At Nándgaon 50 mares were collected for my inspection and I branded 1 mare for horse and 8 for pony, rejecting 41. Most of the mares were in poor condition. The stallion "Cyclone" was in excellent condition.

Chálisgaon, 16th April 1889.

7. Here I branded 2 mares for horse and 13 for pony. The stallion "Pinto" was in good condition.

Dhulia, 18th April 1889.

8. I next proceeded to Dhulia, where 38 mares were collected for my inspection and I branded 13 for pony, rejecting the rest. The stallion "Lieutenant" was suffering from disease of sheath and cord and I recommended treatment, &c., but he became worse and it was then ascertained that the disease was incurable and I therefore recommended him to be cast and sold.

Násik, 20th April 1889.

9. I proceeded here on the 20th April. Only 5 mares were collected for my inspection, although timely notice of my coming was given to the Mámlatdár of the táluka. I was disappointed on seeing the poor number presented. I only branded 3 mares for pony. The stallion "Multum" was in good condition.

Igatpuri, 22nd April 1889.

10. I next went to Igatpuri where I branded 10 mares for pony and rejected 8.

Bombay, 24th April to 5th May 1889.

11. Thence I went to Bombay and remained there till the 5th May 1889 for the purpose of assisting in the examination of the students of the Bombay Veterinary College.

Poona, 6th to 20th May 1889.

12. From Bombay I returned to Poona and remained there till the 20th May for office work.

Sirúr, 21st May 1889.

13. I arrived here on 21st May and inspected the marginally noted stallions and found them in good condition. I branded 15 mares for pony and rejected 10.

Tam O'Shanter ...	T. B. E.	Orator ...	Arab.
Opal	Do.	Pradhán ...	Do.
Luminary... ...	N. T. E.	Hakim ...	Do.
Review	Do.	Patwari ...	Donkey stallion.

Supa, 25th May 1889.

14. From here I marched to Supa and branded 13 mares for horse and 15 for pony.

Zamindár ...	Arab.	Hector	Arab.
Chinkara... ...	Do.	Latchkey... ...	Do.

15. I inspected the stallions noted in the margin and found them well groomed.

Bárámati, 27th May 1889.

16. At Bárámati I inspected 17 mares and branded 6 for horse and 3 for pony, rejecting the rest.

Rocket ...	Arab.	Young Freedom...	N. T. E.
Tannáji ...	Do.		

The stallions noted in the margin were in good condition.

Sansár, 28th May.

17. On my way to Indápur I halted at Sansár and branded 6 mares for pony.

Indápur, 30th May 1889.

18. I visited Indápur on the 30th May for the purpose of inspecting and branding mares, but very few were sent though timely notice had been given. I inspected 15 mares, and branded 3 for horse and 9 for pony.

Kumayat ...	Arab.	Teelwell...	N. T. E.
Ormonde ...	Do.		

19. I inspected the marginally noted stallions and found them in excellent condition.

20. "Teelwell" was reported a slow coverer and was therefore transferred to Ahmednagar; there also he could not be induced to cover a mare and was subsequently sent to Babugarh.

Poona.

21. From Indápur I returned to Poona and remained there till the 1st July and then proceeded to Bombay to attend the meeting of the Board of Managers of the Veterinary College and returned to Poona on the 4th and remained there till the 11th. On the 12th I proceeded to Ahmednagar for the purpose of inspecting depôt stallions and found "Wisechild" and "Adonis" suffering from sores and "Glendale" was suffering from skin disease and I recommended treatment, &c. The other stallions were in good condition. I returned to Poona on the 18th and remained there till 28th for office work and then proceeded to Bársi in the Sholápur District.

Bársi, 28th August 1889.

22. Here I branded 29 mares for pony and rejected 15. The mares were small and only suited for pony-breeding.

Shetphul, 30th August 1889.

23. I marched here on the 30th and inspected 81 mares; branded 1 for horse and 40 for pony and rejected 40. This place is on the way to Pandharpur and I recommended that a stallion be placed here if stabling and the necessary supervision could be given.

Pandharpur, 31st August 1889.

24. Here the Mámlatdár of the place had collected 75 mares for my inspection and I branded 9 for horse and 36 for pony.

Sángola, 2nd September 1889.

25. Out of 145 mares collected for my inspection, I branded 16 mares for horse and 90 for pony rejecting 39.

26. The stallion "Phantom" was suffering from chronic disease of sheath and debility and was ordered to be sent to Veterinary School, Poona, for treatment. It was afterwards found that the disease was incurable, so he was castrated and sold by order of Government.

27. Thence I returned to Poona and remained there till the 10th of September for office work. On the 11th I proceeded to Ahmednagar to see Colonel Deane, Director of Army Remount Department, and to confer with him on the arrangement regarding the establishment of Rearing Depôt—*vide* Government memorandum No. 6745 of 9th September 1889.

28. Thence I returned to Poona, and remained there till the 8th of October. While here I assisted at the Horse-show and made arrangements to remove my office to Ahmednagar—*vide* Government Resolution in Revenue Department, No. 7134 of 21st September 1889. During the time I was here I branded 16 mares for horse and 6 for pony.

29. From 21st to 24th of September there was a Horse-show at Poona. The show was indifferent both as regards numbers and quality, which I attribute to uncertainty almost to the last moment as to whether ways or means could be found for holding the show.

30. All the stallions in the Poona District were brought in for my inspection and I found them in good condition.

31. Here I branded 7 mares for pony. My object in visiting this place was to purchase young stock for the Remount Depôt at Ahmednagar, but very few were brought for my inspection.

Kedgaon, 9th to 10th October 1889.

32. From Kedgaon I marched to Sirúr, and branded 1 mare for horse and 11 for pony. The stallions here were in good condition and the stable management satisfactory.

Sirúr, 13th to 15th October.

33. I next proceeded to Supá in the Párner Táluka of the Ahmednagar District, where I inspected 40 mares and branded 7 for horse and 13 for pony. Here I purchased one bay mare for the Nagar Remount Depôt.

Supa, 17th to 19th October.

34. From Supa I came here and remained till the 23rd, when I proceeded to Bombay to see Mr. Hallen, General Superintendent, Horse-breeding Department. On the 26th I returned to Ahmednagar and went to Vadgaon in the same district to inspect young stock. From 29th of October to the 7th of November I remained at Ahmednagar.

Ahmednagar, 20th and 21st October.

Sávda, 11th to 13th November 1889.

35. Here 106 mares were collected for my inspection and I branded 46 for pony and rejected 60.

36. I arrived here on the 16th November and branded 86 mares for pony. The mares were a good lot, mostly suited for pony breeding. The stallion "Grey Friar" standing here was in good condition.

Chopda, 16th November.

37. I marched here on the 18th and inspected 186 mares, out of which I branded 86 for pony and rejected 100. The mares were a good lot. The stallion "Nana" was in fair condition.

Shirpur, 18th November.

Nardona, 20th November.

38. On my way to Dhulia I halted at Nardona and branded 11 mares for pony and rejected 3.

Dhulia, 22nd November.

39. Here I branded 33 mares for pony and rejected 7. I inspected the stallion "Torpedo" and found him in good condition.

40. Considering the large number of mares branded in the Khándesh District I transferred the pony stallion "Monk" from Sátára District to Khándesh.

Chálisgaon, 24th November.

41. I came here on the 24th but found no mares for branding.

42. I remained here for two days in order to make preparations for my going to Málegaon in the Nizám's territory. I went to Hyderabad on the 27th November and remained there for some days to arrange for money, &c., &c. I marched to Málegaon and arrived there on the 15th of December. I remained here till the 21st and purchased 13 young stock.

Ahmednagar, 25th and 26th November.

43. On my way from Hyderabad to Málegaon I inspected the Nizám's paddock, stallions and young stock at Sangar-Hati, and I recommended Mr. Ali Abdula to cast some stallions suffering from hereditary unsoundness. The grasses here are excellent for young stock. The farm and the grazing is very good.

44. The Rájkot Horse Show was held from 9th to 14th of December 1889, but I was unable to attend this as I had to go to Málegaon—*vide* Government Resolution in the Revenue Department, No. 8423, dated 5th November 1889. However I learn that the Show was a decided success, owing probably to the exertions of Mr. Lely, C. S., with whom Major Humfrey and Mr. Mackay and other local officers seem to have cordially co-operated.

Shikárpur, 10th—17th January 1890.

45. I arrived here on the 10th January 1890 and assisted at the Horse Show.

46. The total number of animals brought for exhibition was 1,038 and of these 784 were classed. The number of animals was less than the previous year, but it was very gratifying to notice that in point of quality the animals displayed a marked improvement, as will be seen from the high percentage of animals found suitable for remount purposes.

47. The following number of animals were purchased for remount purposes :—

By Major Chalmers, Army Remount Agent			...	133
By Officer Commanding 6th Bombay Cavalry			...	10
By District Superintendent of Police, Karáchi			...	9
„ Do.	Do.	Shikárpur.	...	7
„ Do.	Do.	Thar and Párkar	...	8
		Total	...	167

48. The General Superintendent, Horse-breeding Operations in India, who attended the Show, remarked as follows :—

"That this Show holds stock of superior classes we have proof in the fact that about 159 remounts have been purchased; and that of these 133 (exclusive of about 30 bought in the districts) have been purchased by the British Army Remount Agent, Major Chalmers* * *. Again I would ask you, sir, and the ladies and gentlemen present, it to be noted that while at large horse fairs and shows, *e.g.*, at the last Batesar Fair, where above 7,000 horses were collected, only 73 remounts and young stock were obtained, at Hardwár Fair from 3,000 head of stock present, only 11 were secured by Government; but here from only 1,000 Remount Agents have obtained no fewer than 159 superior animals. An officer of the Sind Horse, purchasing remounts, has secured only 7; but in all probability he is waiting to obtain more at the coming Sibi Horse-Show; and as a rule remounts are easily found when required in the districts where the Sind Horse are generally quartered."

49. Here I branded 28 mares for horse, 3 for pony and 15 for donkey. The mares were a good lot.

50. I took this opportunity of inspecting all the stallions in the district that were brought to the Show, and found them in good condition with the exception of donkey stallion "Moti." He was suffering from incurable disease of testicles and penis and was destroyed in consequence. Donkey stallion "Gohana" was transferred to Bábugarh to learn his work.

Waverly	...	Arab.
Shahar	...	Do.
Royal Visit	...	Do.
Nicholas	...	Do.

Donkey Stallions.

Gohana, Gopugunj, Bhera, Needy, Balaam, Kulloo, Chunji, Banarjee, Achnera, John, Bhag, Shah Ferid, Khandoba.

51. Also the stallions from Jacobabad were brought in and I found them in good condition with the exception of "Kamarputta" and "Jack." "Kamarputta" was sent to Bábugarh for treatment and "Jack" was destroyed as he was suffering from incurable disease of testicles and penis.

Cupid	...	N. T. E.	Sobersides	...	T. B. E.
Contract	...	Do.	Shrewsbury	...	Do.
Sir Peter	...	Do.	Sir Frank	...	Arab.
Trustee	...	Do.	Gold Mohor	...	Do.
			Maras	...	Arab.

Donkey Stallions.

Socrates, Ramghat, Bagput, Kamarputta.

Sukkur, 18th to 24th January 1890.

52. I next went to Sukkur and remained there for office work.

Rádhan, 25th January 1890.

53. Here I branded 7 mares for horse. The stallions of the Hyderabad District were brought here for my inspection and I found them in good condition.

Mirpur, 28th to 31st January 1890.

54. Out of 55 mares presented for my inspection I branded 5 for horse and 25 for donkey.

Lárkhána, 15th February 1890.

55. I proceeded here on the 15th and branded 25 mares for horse and 16 for donkey, rejecting 149. The mares were a poor lot as will be seen from the number rejected.

Rádhan, 16th February.

76. I again visited this place in order to give the breeders a second chance, and branded 5 mares for horse and 14 for donkey, rejecting 60.

Jacobabad, 17th February.

57. Here 542 mares were collected for my inspection, and I branded 27 for horse and 24 for donkey and rejected 491. The stable management was excellent.

Thul, 18th February.

58. My next visit was to Thul, where I branded 19 mares for horse, 10 for pony and 48 for donkey.

Sibi, 24th to 27th February.

59. The Sibi Horse-Show was held on the 24th February and following days. I note that 97 remounts and young stock were purchased by Major Chalmers, besides those bought for local cavalry; this proves the value of Beluchistan as a field for remount operations. I also note the need for competent sálutris, and hope to make arrangements to meet it.

Songster	...	T. B. E.
Duncan	...	Do.
Sir Francis	...	Do.
Sir James	...	N. T. E.
Brunno	...	Do.
Midnight	...	Do.
Sportsman	...	Do.
Reliance	...	Do.
Cyprus	...	Arab.
Beaver	...	Do.
Kohilan	...	Arab.
Essau bin Curtas.		Do.
Ameer	...	Do.
Samshere	...	Do.
Rejeb	...	Do.
Kaitan	...	Do.
Jhang	...	Do.
Akola	...	Do.
Jeeramji	...	Donkey Stallion.

60. Here I branded 140 mares. I also inspected the stallions noted in the margin, and found them in good condition with the exception of "Ameer" and "Cyprus."

Karáchi, 1st to 7th March.

61. I came here on the 1st of March and as no steamer was to start for Cutch-Mándvi till the 8th, I was obliged to halt here.

Bhúj, 11th March 1890.

Elzevier	...	T. B. E.
Dispatch	...	N. T. E.
Glenmore	...	Arab.
Lord Napier	...	Do.

62. This year there was no Horse Show at Bhùj. I inspected the marginally noted stallions and found them in good condition. I transferred the following stallions to Ahmedabad, as they were more than five years in this district:—"Lord Napier," "Elzevier" and "Dispatch." These were replaced by "Sindia," "Hampton" and "Tahlim" from Ahmedabad.

63. Here I branded 17 mares for horse, and rejected 20. I also purchased 4 young stock for the Ahmednagar Remount Depôt.

Ahmedabad, 24th to 27th March 1890.

64. I then proceeded to Ahmedabad to attend the Horse Show. It is satisfactory to note that there was an increase in the number of exhibits this year in the brood-mare class (71), also of colts and fillies under 12 months (2), of 3 year old fillies (15), of 4 year old colts (10) and a slight increase in the number of colts castrated.

65. On the other hand, there was a decrease principally under the head of yearlings (19), horses and ponies (59), and remounts (25); in all however there was a slight increase in the number of exhibits.

66. Considering that the year had been a bad one for food supply and that the majority of the exhibits were the property of *boná fide* cultivators, the Darbár horses being few in number, probably due to a show being held simultaneously in Bombay, the general result of this Show may be considered satisfactory.

67. I should have liked to attend the Bombay Show, where I understand some of the young stock and many of the brood-mares and stallions of the Darbárs were exhibited, and an opportunity afforded of contrasting stock from several distinct portions of Western India. I note that a brood-mare from the Poona District took first prize and so also did her foal.

68. I inspected 135 mares and branded 18 for horse, 67 for pony and rejected 50. The mares were a good lot.

Hampton ...	T. B. E.	Kohinoor ...	Arab.
January ...	Arab.	Hassan ...	Do.
Tahlim ...	Do.	Sindia ...	Do.
Angrya ...	Do.	Melton ...	Do.

69. I also inspected the stallions noted in the margin and found them in good condition. Here I purchased 4 young stock for the Ahmednagar Depôt.

70. Here I inspected the Government stallions "Majeeb" and "Cottonham" and found them in excellent condition. I found "Majeeb's" services were fully utilized, but "Cottonham" got a small number of mares to cover, being considered too big. I transferred him to Ahmedabad and sent "Lord Napier" in his place.

Deesa, 29th March 1890.

General Remarks.

71. This year as last it is evident that Gujarát and the Deccan have not made satisfactory progress in horse-breeding operations. Scarcity of forage has continued, and so long as this is the case results will be indifferent. It is a matter which doubtless is receiving adequate attention from the Agricultural Department, but it is much to be hoped that in the coming year the rainfall will be such as to secure the stock of all kinds in abundance, or at any rate a sufficient supply of good natural fodder.

72. I have tried by personal enquiry to ascertain what special grazing grounds are resorted to by daláls in bad seasons, for the purpose of feeding young horse stock purchased by them. I find however that there is a considerable amount of secrecy in connection with this matter, so have set the Inspectors of this Department to work to collect information on the subject indirectly. Should they collect material worth report I will specially inform Government in the matter for the information and guidance of the Remount Department. In Ahmednagar and Poona Districts the best places for grazing are as given by the Inspectors :—

Ahmednagar.

1. Chichoondi of Mahadu Patel in Táluka Nagar.		8. Wákdi Pimpri in Táluka Shevgaon.	
2. Kada	in Táluka Jámkhed.	9. Chapadgaon	„ „
3. Ajunj	„ Shringonda.	10. Khanche Hivre	„ Nevása.
4. Belwandi	„ „	11. Jawla	„ Párner.
5. Loni	„ „	12. Yeoti	„ Shrigonda.
6. Pedgaon	„ Nevása.	13. Pimpalgam Waga	Nagar.
7. Rastápur	„ „	14. Wagadari	„ Shrigonda.

Besides these there are many places but they are not so good as the above.

Poona.

Allegaon in Táluka	Sirúr.	Rahu in	Táluka Bhimthadi.
Rasai Wadgaon in Táluka	Do.	Donaj	„ Indápur.
Kangaon	„ Bhimthadi.	Palasdeo	„ Do.
Pimpalgaon	„ Do.		

73. The best places for grazing observed by me during the past year were in the Nizám's territory; and this seemed to me to be due largely to the excellent system of accumulating water by means of bunds, often of great antiquity, thrown across the mouths of passages between the hills of impervious rock; also the many streams which I passed over on my way to and from Málegaon.

74. Although undoubtedly the horse-breeders are passing through bad times, I can't help concluding that more use ought to be made of stallions of all classes in several parts of the country, of which I may specify Násik, Sátára, Sholápur, Bijápur and Dhárwár. They are all pony districts and it will be remembered that not long ago there was an energetic demand made by the district

officials, especially by the Central and Southern Divisions of the Presidency, for pony sires. It was shown that it was necessary to resort to special measures with a view to restoring the number and quality of pony stock, which had experienced exhausting drains through supplies of baggage ponies for active service. Government passed a special grant of Rs. 12,000 for the purchase of pony stallions. The Horse-breeding Department posted the stallions, branded a sufficiency of mares and inspected the districts. Thus all measures necessary to support these districts in their efforts to restore the breed of ponies were taken, and it is unfortunate that as yet the owners of mares have not shown themselves willing to take advantage of the facilities for breeding thrown in their way.

75. At Bijápur it seems the galloway "Motiram" was considered too large, so I have now replaced him by a 13-2 pony. With regard to Sholápur and Sátára, the number of stallions for the present has been reduced; but if in future the number of coverings indicate a larger demand it can be at once met, as suitable stallions are easily procurable. The district officials of Government are, I believe, fully impressed with the importance in every way of promoting the work of the Department, and I trust that their effort will prove successful in obtaining marked results when the present bad times cease.

76. It is interesting that under the influence of the Collector of Kaira a collection of pony mares was made in connection with the Nadiád Agricultural Show held in February last. A fair number of animals were brought together, and the exhibits were reported as satisfactory evidence of the work done in this district. I was not myself able to attend this Show, but I hope to be able to do so at the next exhibition if it is decided to again collect horse stock there.

77. A considerable reduction has been made in the register of branded mares by striking out those that have become useless or have been lost sight of or have died, and those that have been branded in Káthiáwár, from which place all Government stallions have been withdrawn; also those mares branded for donkey stallions in Cutch, Poona and Ahmednagar Districts, since the Government brand is no longer required for the donkey stallions. Retention of mares unnecessarily on the list is a mistake, as it is a sort of trap into which the critics of the department, who judge purely from the statistics, are specially apt to be caught. It seems unnecessary to lower the percentage of produce and remounts purchased in proportion to the number of coverings and mares branded.

78. In the current year the Remount Department has started its rearing depôt at Ahmednagar. Hitherto my work in connection with this department has been in purchasing young stock, a considerable number of which have gone to Karnaul and the remainder sent to Ahmednagar, where if well fed and brought up on the liberty system they ought to develop into animals valuable for Government.

79. A considerable part of my tour was occupied in the expedition to Málegaon Fair, for the purchase of remounts—a duty which certainly seems to me might in future be performed by the officers of the Remount Department, as it is evident that Málegaon is a good field for the purchase of young stock at reasonable prices and at very moderate cost in marching thence to the depôt. The Show this year was a poor one compared to those of former years; but I have no doubt there will be a great improvement next year, as it will be under the able management of Mr. Ali Abdulla, who has recently been reinstated in his post as Superintendent of Stud to His Highness the Nizám, is fully alive to the importance of developing horse-breeding in the southern parts of His Highness the Nizám's dominions, and is accordingly fully prepared to render every assistance to Remount officers attending Málegaon Fair. I am much indebted to him for the assistance he gave me. Several complaints were made to me regarding toll tax on every thing that goes to and comes from Málegaon, and on inquiry I was informed that His Highness the Nizám wishes to reduce it. This certainly would be a step in the right direction, as the animals coming to the Fair are valued by Munshis (who cannot be expected to judge fairly the value of horses), and duty charged accordingly.

80. I have received a request to purchase remounts for the remount nursery in the coming year in Káthiáwár. But it seems to me that if I am to make a tour for the collection of young stock throughout Káthiáwár, I shall have very little time left for the performance of my special duties as Superintendent of Horse-breeding Operations. I have therefore to suggest that it would be as well if a Remount officer did the tour through Káthiáwár, and if he felt the need for my professional services, collected his young stock at such accessible place such as Porbandar or Bhávnagar, which I could attend at a special time in the course of annual tour.

81. In Sind remount work was done at the Fairs by Major Chalmers who availed himself fully of my professional services. In order that the work of the two departments may be done effectually at these Shows, it is necessary that an officer from each department should attend. This is the more necessary because the Superintendent of Horse-breeding Operations is from the very nature of the post obliged to obtain for the breeders the highest possible price, whereas a Remount officer should spend no more Government money than is absolutely necessary for remounts. It is therefore rather difficult to satisfactorily continue the two duties. Certainly the Remount Department and Transport Department should always be represented at the shows and fairs of the country, as herein lies one of the secrets of obtaining country-bred stock for military purposes. The number of young stock purchased in Sind was considerable. The number of mares brought forward for the brand was considerable and consequently there were many rejections. Civil officers in Sind, especially Colonel Mayhew, Mr. Giles, Colonel Trevor, Mr. Steele, Mr. Mules, &c., &c., deserve notice here as valuable to the department, and altogether the prospects of horse-breeding operations are excellent.

82. I have not yet succeeded in attending the Chinchli Show, as it is held when I am on tour in Sind.

Castration.

83. The number of castrations is quite insufficient; on carefully considering this matter I have concluded that a change of system is necessary, and I hope to introduce gradually in the coming years a system of employment by the department of such Graduates of the Bombay Veterinary College as are posted in the districts on the system to be adjusted on each case in consultation with the District Local Boards.

Statistical Report.

Stallions : Number of.

84. The opening balance of the number and classes of horse stallions was as follows:—

	Horses.	Ponies.	Total.
Thoroughbred English	11	0	11
Half-bred English, including Norfolk Trotters ...	12	0	12
Arabs	35	37	72
Pegu	0	1	1
Total ...	58	38	96

Increase received during the year.

85. During the year under report one thoroughbred English stallion was received by transfer from Bengal register in exchange for Arab stallion "Ameer". "Ameer" was sent to Beluchistán.

Decrease : Casualties.

86. Four stallions died during the year. Detailed particulars regarding the above will be found in Appendix I.

87. The percentage of casualties during the last two years is shown below :—

Died.

In 1888-89	3·12
In 1889-90	4·76

Destroyed.

In 1888-89	1·04
In 1889-90	0

88. In all seven stallions were cast and sold as useless for stud purposes. The detailed particulars regarding these will be found in Appendix II. Three were sold for impotence. One was found to be vicious and dangerous to the syce and mares and therefore was cast and sold. The remaining three were suffering from incurable disease and were sold in consequence.

Sales, &c.

89. The number of stallions present on the 31st March 1890 is as follows :—

Number of stallions present.

	Horses.	Ponies.	Total.
Thoroughbred English	12	0	12
Half-bred English, including Norfolk Trotters ...	10	0	10
Arabs	27	34	61
Pegu	0	1	1
Total ...	49	35	84

90. The classification of the above-mentioned stallions will be found in Appendix III, a summary of which is here given :—

Classification.

Very good...	66
Good	34
Fair	3
Total ...	103

This number includes the stallions serving in Beluchistán.

91. The number of horse stallions distributed in several breeding districts, during the last twelve years, is shown in the following table :—

Distribution.

Provinces.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.
Deccan	27	41	40	45	47	41	37	45	55	58	55	50
Gujarát	17	22	20	24	20	18	18	19	20	17	14	11
Sind and Cutch ...	12	12	9	9	13	16	17	17	28	28	27	23
Beluchistán ...	...	...	...	...	...	4	3	8	19	14	13	19
Total ...	56	75	69	78	80	79	75	89	122	117	109	103

92. Of the total strength of 103 (including Beluchistán), 93 were actually employed at stud work during the year. The remainder were either at the depôt for acclimatization or temporarily unfit for service.

Strength of stallions.

93. The names of stallion stands are shown in the map (Appendix V). Horse stands are noted in red, and donkey stands in green type.

Map of horse-breeding operations.

94. Appendices VI and VII show the number and classes of horse and donkey stallions, the number of branded mares, and the number of coverings at each stand.

95. Appendices VIII and IX show the number of days each horse or donkey stallion was employed and at which stand: also the total number of mares covered during the year.

96. Horse-breeding continues steady in Deccan, Gujarát and Cutch. It is flourishing in Sind and Beluchistán where demand for stallions continues.

Stallions : Demand for.

97. I will have to purchase some Arab stallions locally during the current year.

Further supply of stallions.

98. Appendix IV gives the total cost per annum of feeding, &c., of stallions. The general average per stallion during the last twelve years has been as follows :—

Cost of keep, &c., &c.

	Rs.	a.	p.		Rs.	a.	p.
In 1878-79... ...	442	9	0	In 1884-85... ...	339	5	3
„ 1879-80... ...	358	5	0	„ 1885-86... ...	317	6	5
„ 1880-81... ...	301	1	0	„ 1886-87... ...	341	2	7
„ 1881-82... ...	272	8	7	„ 1887-88... ...	362	12	5
„ 1882-83... ...	285	9	11	„ 1888-89... ...	344	3	6
„ 1883-84... ...	319	10	8	„ 1889-90... ...	363	0	6

99. This shows an increase of Rs. 18-13-0 per stallion over that of the year before. This is due to the increased prices of gram and fodder during the year.

Branded Mares : Number of.

100. On the 1st April 1889 the number of branded mares on the register was as follows :—

Provinces.	Horse.	Pony.	Total.
Deccan	1,131	4,718	4,849
Gujarát	1,248	870	2,118
Sind and Cutch	2,008	111	2,119
Beluchistán	579	13	592
Total ...	4,966	5,712	10,678

101. During the year the under-mentioned mares have been added to the register :—

Provinces.	Horse.	Pony.	Total.
Deccan	83	623	706
Gujarát	18	67	85
Sind and Cutch	130	13	143
Beluchistán	144	...	144
Total ...	375	703	1,078

102. The following number of branded mares has been removed from the register for reasons noted below :—

Provinces.	Horse.	Pony.	Total.
Died	13	11	24
Transferred to other districts	1	...	1
Struck off the register as there is no possibility of their coming to Government stallions (*see* paragraph 77 of this report).	355	6	361
Total ...	369	17	386

103. On the 31st March 1890 the number of branded mares remaining on the registers is shown in Appendix X as noted below :—

Provinces.	Horse.	Pony.	Total.
Deccan	1,200	5,330	6,530
Gujarát	911	931	1,842
Sind and Cutch	2,138	124	2,262
Beluchistán	723	13	736
Total ...	4,972	6,398	11,370

104. The results of the coverings of 1888-89 are given in Appendix XI. No doubt more produce is obtained, but owing to the reasons given in paragraph 84 of my annual report for 1888-89 no reliance can be placed on these figures generally.

Number of mares covered.

105. The under-mentioned figures show the number of branded mares covered by Government horse stallions during the last twelve years :—

In 1878-79	1,825	In 1884-85	1,884
„ 1879-80	1,881	„ 1885-86	2,317
„ 1880-81	2,185	„ 1886-87	2,765
„ 1881-82	2,403	„ 1887-88	3,578
„ 1882-83	2,508	„ 1888-89	3,282
„ 1883-84	1,792	„ 1889-90	3,113

106. This shows a decrease of 169 mares if compared with the figures of 1888-89 which is attributed to the number of stallions being reduced and the poor condition of many of the mares which are brought to the stands, but sent away as unfit to be covered.

107. The average of branded mares covered per stallion employed during the last twelve years is given below :—

In 1878-79	34·00	In 1884-85	29·88
„ 1879-80	33·24	„ 1885-86	32·16
„ 1880-81	33·70	„ 1886-87	33·08
„ 1881-82	33·94	„ 1887-88	35·10
„ 1882-83	34·20	„ 1888-89	35·53
„ 1883-84	28·00	„ 1889-90	36·34

Produce : Number of.

108. The percentage of produce foaled to mares covered in 1888-89 is given below with the corresponding figures, of the previous years :—

In 1883-84	24·09	In 1887-88	37·42
„ 1884-85	34·16	„ 1888-89	37·32
„ 1885-86	34·06	„ 1889-90	33·61
„ 1886-87	34·55		

109. The falling off in the percentage of produce is due to the many abortions and the debilitated state of mares not holding.

Cast Mares : Sale of.

110. During the year under report one cast mare was sold for breeding purposes—*vide* Appendix XII.

Number of country-bred remounts purchased.

111. Appendix XIII shows the number of country-bred remounts purchased during the year under report. The following is an abstract of the numbers obtained :—

Bombay Native Cavalry	252
Police, Northern Division	15
Police, Southern Division	5
Police, Central Division	9
Police in Sind	114
Ahmednagar Remount Rearing Depôt	28
Total ...	423

112. Many remounts were purchased at Shikárpur and Sibi Horse Shows, also at Jacobabad. Major Chalmers purchased in Sind 106 for Bengal Cavalry, 114 for Army Remount Department: but they are not included in this, as they were sent to other Presidencies. However there is an increase of 32 in the number purchased this year if compared with the figures of the last year.

Castration of colts.

113. The number of colts castrated during 1889-90 by Government sálutris will be found in detail in Appendix XIV. The number operated on during the last nine years is given below :—

1881-82 ...	... 11	1886-87 ...	... 68
1882-83 ...	... 71	1887-88 ...	... 76
1883-84 ...	... 129	1888-89 ...	... 98
1884-85 ...	... 82	1889-90 ...	... 72
1885-86 ...	... 122		

Mule-breeding Operations.

Donkey Stallions: Number of.

114. The names and classes of the donkey stallions present on the register on the 1st April 1889 was as follows :—

Arabs ...	... ...	5
Bokáhra ...	... ...	1
Persian ...	... ...	6
Italian ...	... ...	9
Khorásan ...	... ...	1
Cyprus ...	... ...	2
Khurdistán	... ...	1
	Total ...	25

Increase during the year.

115. No donkey stallions were added to the register during the year under report.

Decrease during the year.

116. During the year under report the following donkey stallions were removed from the register, for reasons noted below :—

Destroyed ...	Arab	1
	Persian	1
	Total ...	2

117. The details of casualties will be found in Appendix XV.

Number of donkey stallions present.

118. At the close of the official year under report the numbers and breeds of donkey stallions present on the registers are shown below :—

Arab ...	... ...	4
Bokhára ...	... ...	1
Italian ...	... ...	9
Persian ...	... ...	5
Khorásan ...	... ...	1
Cyprus ...	... ...	2
Khurdistán ...	... ...	1
	Total ...	23

Classification.

119. The classification of the donkey stallions will be found in Appendix XVI., of which the following is a summary :—

Very good	... ...	13
Good ...	... ...	8
Fair ...	... ...	3
	Total ...	24

120. This number includes one donkey stallion serving in Beluchistán.

Demand for donkey stallions.

121. The demand for the services of donkey stallions continues. Mule-breeding is now confined to Sind. Since the close of the year under report I have transferred the one donkey stallion serving at Sirúr in the Poona District to Jacobabad. It is hoped that in course of time about 20 donkey stallions will be required for Shikárpur alone. I expect to receive seven donkey stallions next trooping season. Several good mules were purchased here for Transport and I have no doubt but in a few years there will be a large market for mules in Sind.

Cost of keep, &c., of donkey stallions.

122. The cost of feed, keep, attendants, &c., &c., of donkey stallions is given in Appendix XVII. The general average of the past seven years has been noted below :—

		Rs.	a.	p.			Rs.	a.	p.
1882-83	...	233	9	0	1886-87	...	230	14	9
1883-84	...	194	4	8	1887-88	...	291	7	7
1884-85	...	240	13	10	1888-89	...	270	5	5
1885-86	...	202	15	6					

123. There is a satisfactory decrease in the cost of keep of donkey stallions in this year if compared with the figures of the previous year.

Mares covered : Number of.

124. The number of mares covered during the last seven years by Government donkey stallions is shown below :—

In 1883-84	...	209	In 1887-88	...	819
„ 1884-85	...	294	„ 1888-89	...	890
„ 1885-86	...	338	„ 1889-90	...	821
„ 1886-87	...	616			

125. This shows a decrease of 69 ; this is owing to the number of stallions being reduced. Stallions "Jack" and "Moti" were sick for a considerable part of the year and the stallions "Gohana" and "Kamarputta" could not be induced to cover mares and therefore they have been sent to Bábugarh to learn the work.

Mule Stock : Number of.

126. As shown in Appendix XVIII. the number of mules by Government stallions, reported as foaled during the year, was 73 against 103 of last year.

127. Appendix XIX. is a general statement showing Horse Shows held during the year 1889-90. The following prizes were awarded :—

	Rs.	a.	p.
Poona	2,887	0	0
Rájkot	2,025	0	0
Shikárpur	4,230	0	0
Sibi	2,248	0	0
Ahmedabad	2,270	0	0
Total ...	13,660	0	0
Add other Expenses ...	6,860	1	3
Grand Total ...	20,520	1	3

of which the sum of Rs. 6,600 was paid from the Provincial Revenues and Rs. 1,000 by the Government of India (for Sibi Horse Show), and the balance, Rs. 12,920-1-3, was contributed by Local Funds and subscriptions. The sources of contributions towards Horse Shows have been given below :—

Name of Shows.	Local Funds.	Subscription.			Balance of last year.			Total.		
		Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Poona	...	1,489	0	0	494	0	6	1,983	0	6
Rájkot	750	3,096	8	9	.....			3,846	8	9
Shikárpur	1,000	2,937	6	1	.....			3,937	6	1
Sibi	1,248	385	15	0	.....			1,633	15	0
Ahmedabad	1,000	519	2	11	.....			1,519	2	11
Total ...	3,998	8,428	0	9	494	0	6	12,920	1	3

128. The number exhibited at these Shows was 3,017 against 3,624 last year, showing a decrease of 607, the reasons for which are given in my remarks on these Horse Shows.

Cost of the Department during 1889-90.

129. The total expenditure incurred during the year 1889-90 is shown in Appendix XX.

130. The expenses incurred for the Superintendent and his office establishment are Rs. 9,545-1-1 against Rs. 9,434-15-1, showing a difference of Rs. 110-2-0. The increase is attributed to the extensive travelling of the Superintendent during the year under report.

131. The total cost amounts to Rs. 65,606-9-4, showing a decrease of Rs. 2,283-6-5 over last year's expenditure. During the year no stallions were purchased and the Government contribution towards the Horse Shows was considerably reduced.

132. The expenses have as usual been divided into two sub-heads as follows :—

	Rs.	a.	p.
I.—Cost of Supervision	13,613	8	7
II.—Keep of Stallions and Horse Shows ...	51,993	0	9
Total ...	65,606	9	4

of which the sum of Rs. 17,443-0-3 is debited to Local Funds, Rs. 5,949-0-11 is paid by the Government of India for expenses of Government stallions in Beluchistán and contribution towards Sibi Horse Show, and the remaining, Rs. 42,214-8-2, is debited to Provincial Revenues.

133. The amounts awarded as prizes by Government at the Fairs and Horse Shows during the last twelve years are noted below :—

	Rs.	a.	p.		Rs.	a.	p.
In 1878-79 ...	7,293	10	6	In 1884-85 ...	8,370	0	0
„ 1879-80 ...	7,141	1	0	„ 1885-86 ...	6,383	0	0
„ 1880-81 ...	9,184	14	0	„ 1886-87 ...	9,400	0	0
„ 1881-82 ...	10,515	11	4	„ 1887-88 ...	9,900	0	0*
„ 1882-83 ...	11,866	8	0	„ 1888-89 ...	8,430	0	0*
„ 1883-84 ...	10,666	14	6	„ 1889-90 ...	7,600	0	0*

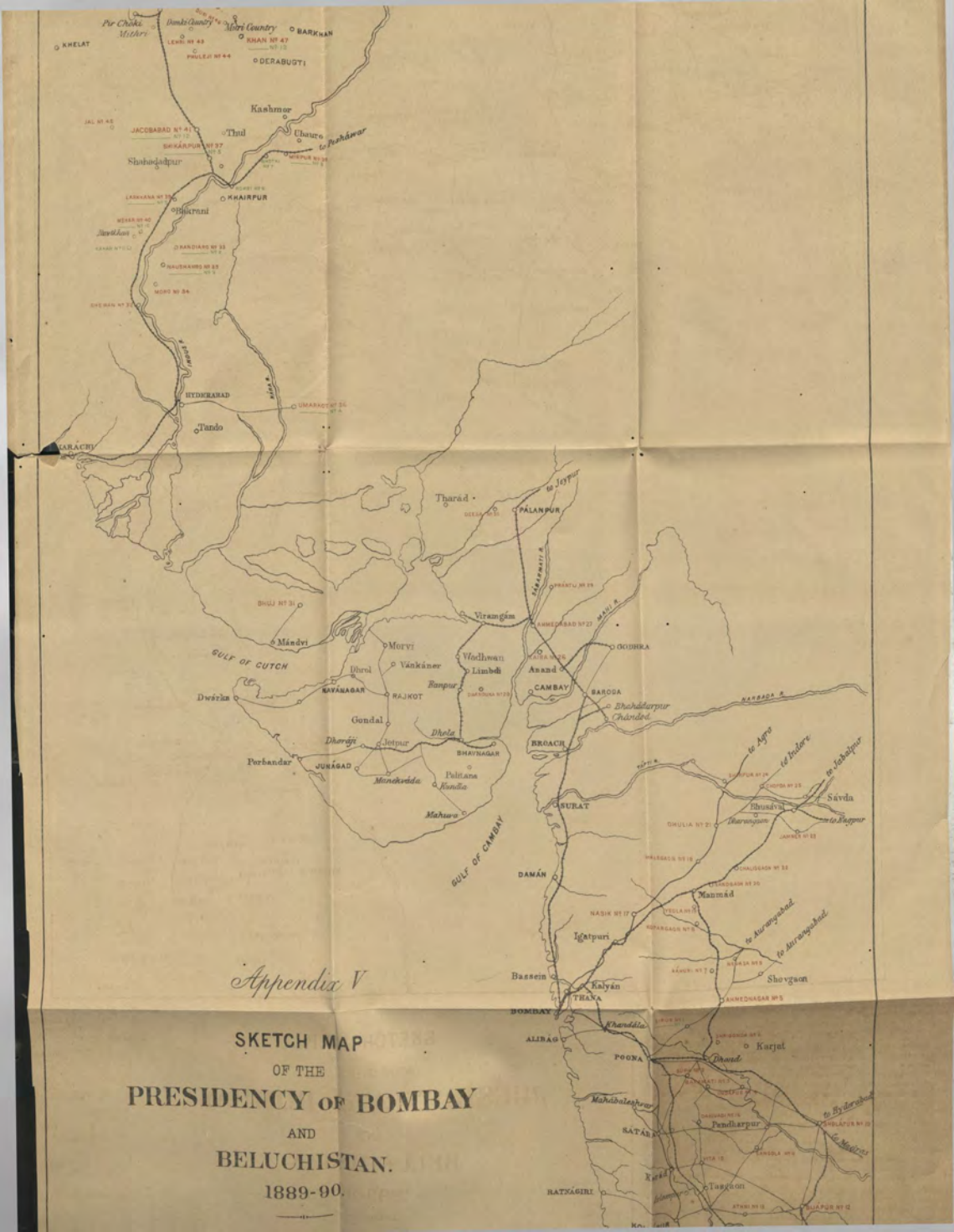
* Includes Rs. 1,000 paid by the Government of India towards Sibi Horse Show.

134. The expenses under the head of stallions' keep, &c., are Rs. 32,068-7-9, excluding Beluchistán, against Rs. 33,643-11-2.

135. The expenses under this head for the last twelve years have been as follows :—

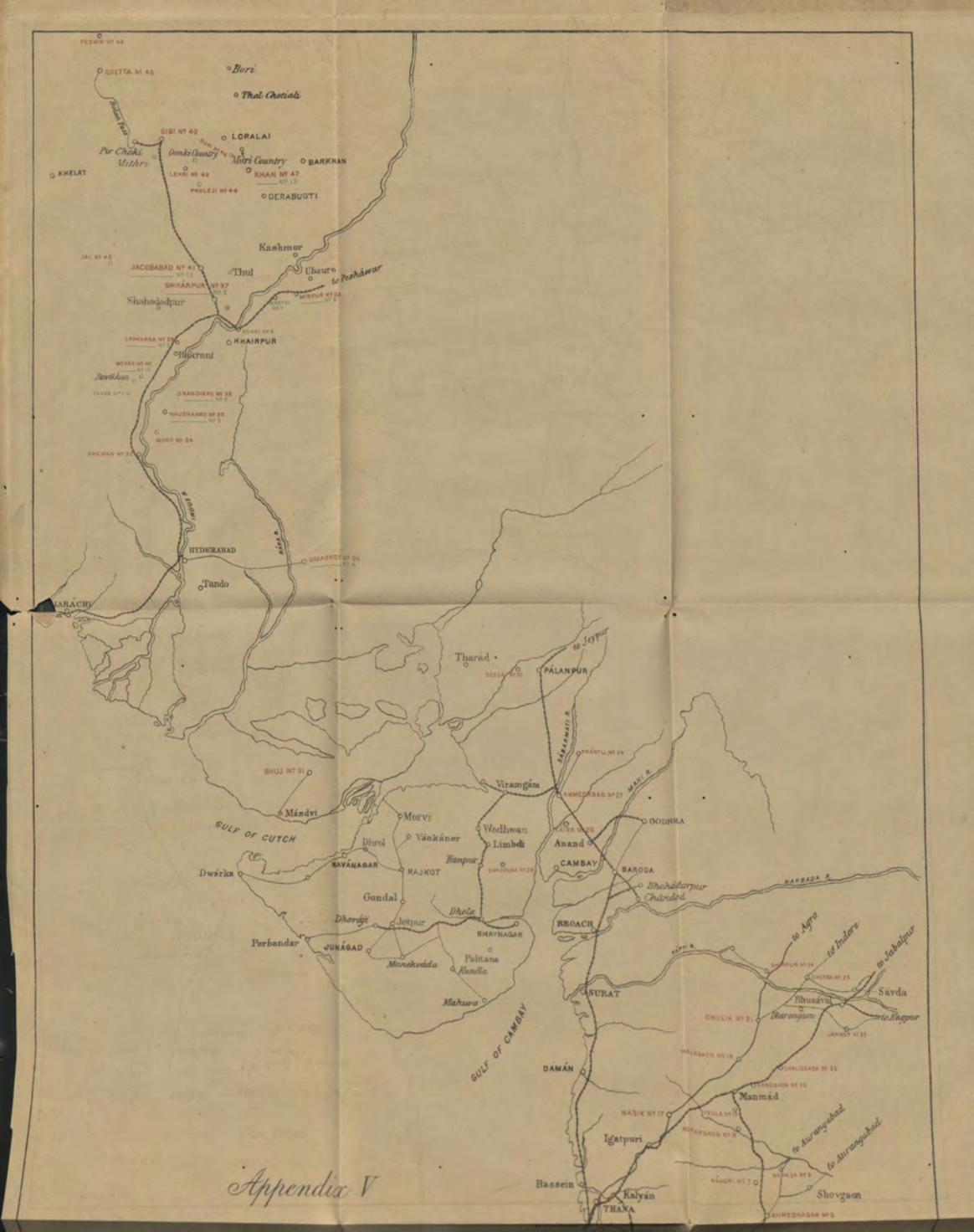
				Rs.	a.	p.
In 1878-79 the keep of		47 1/2	stallions cast was	19,674	12	3
„ 1879-80	do.	51 1/2	do.	18,484	1	3
„ 1880-81	do.	51 3/8	do.	15,646	2	9
„ 1881-82	do.	65·81	do.	17,755	5	8
„ 1882-83	do.	73·32	do.	19,600	15	6
„ 1883-84	do.	72·78	do.	28,269	2	3
„ 1884-85	do.	70·28	do.	23,114	11	4
„ 1885-86	do.	76·06	do.	24,020	15	5
„ 1886-87	do.	93·69	do.	31,321	15	11
„ 1887-88	do.	100·40	do.	33,612	0	11
„ 1888-89	do.	100·002	do.	33,643	11	2
„ 1889-90	do.	91·42	do.	32,068	7	9

J. K. GRAINGER,
Superintendent, Horse-breeding Operations,
Bombay Presidency.



Appendix V

SKETCH MAP
OF THE
PRESIDENCY OF BOMBAY
AND
BELUCHISTAN.
1889-90.


QUETTA Nº 48
Bori
Thal Chotiali
SIBI Nº 42
LORALAI
Pir Chóki Mithri
Domki Country
Mari Country
BARKHAN
KHELAT
LEHRI Nº 42
KHAN Nº 47
PHULEJI Nº 44
DERABUGTI
Kashmor
JACOBABAD Nº 41
Thul
Ubaur
to Peshâwar
SHIKÁRPUR Nº 37
Shahdadpur
KHAIRPUR
Hukrani
KANDIARO Nº 33
NAUSHAHRO Nº 35
MORO Nº 34
HYDERABAD
Tando
KARÁCHI
UMARKOT Nº 36
Tharád
to Jeypur
PÁLANPUR
BHUJ Nº 31
Virangám
AHMEDABAD Nº 27
GODHRA
Mándvi
Morvi
Wadhwan
Limbdi
Anand
CAMBAY
BARODA
GULF OF CUTCH
Dhrol
Ránkáner
NAVÁNAGAR
Ranpur
RAJKOT
Dwárka
Bhadárpur
Chándod
NARBADA R.
Gondal
Dhrángá
Jetpur
Dhola
BHAVNAGAR
BROACH
Porbandar
JUNÁGAD
Manekwáda
Paliana
Kundla
Mahuwa
to Agra
to Indore
to Jabalpur
SURAT
Sávda
Bhusáwal
Dharangaon
to Nagpur
GULF OF CAMBAY
DAMÁN
Manmád
NÁSIK Nº 17
Igatpuri
to Aurangabad
to Aurangabad
Bassein
Kalyan
THÁNA
Shevgaon

Appendix V

APPENDIX I.

GOVERNMENT OF BOMBAY.

Horse-breeding Operations.

Casualty Roll of Horse Stallions in the Bombay Presidency during the official year 1889-90.

No.	English Name.	Native Name.	Class.	Description of Casualty.	Date of Casualty.	Nature of Casualty.
1	Planet ...	...	N. T. E.	Died ...	13th June 1889 ...	Strangulated Hernia.
2	.....	Rangoon.	Arab ...	Do. ...	28th October 1889 .	Inflammation of lungs.
3	.....	Musjid...	Do. ...	Do. ...	16th „ ...	Enterites.
4	Lachin ...	...	Do. ...	Do. ...	28th February 1890.	Chronic spavin inflammation.

ABSTRACT.

Presidency.	Province.	Number died.	Number destroyed.	Total.	Average death.	Average destroyed.	General Average.
Bombay ...	Sind	3	...	3	4·76	...	4·76
	Gujarát	1	...	1			

APPENDIX II.

GOVERNMENT OF BOMBAY.

Horse-breeding Operations.

Statement of Horse Stallions sold during the official year 1889-90.

No.	English Name.	Native Name.	Class.	Date of Sale.	Name of Purchaser.	Amount sold for.	Remarks.
						Rs. a. p.	
1	Grey Dawn ...	.....	Arab ...	6th May 1889 ...	Mr. Sultankhan Sardarkhan.	202 0 0	Uncertain foal-getter.
2	Pilgrim	.....	Do. ...	17th June „ ...	T. Pottinger, Esquire ...	90 0 0	Vicious and dangerous to mares and syce.
3	.....	Torna	Do. ...	25th July „ ...	Mr. Narejan Karim Mehomed Sowar.	161 0 0	Chronic disease of testicles.
4	Rufus	.....	Do. ...	6th January 1890...	Mr. Noordinkhan Mehomed.	215 0 0	Impotent.
5	Phantom	.....	...	23rd February „ ...	Mr. Kooverji Ardessar .	42 0 0	Chronic disease of sheath and debility.
6	Lieutenant ...	.....	Do. ...	Do. „ ...	Mr. Ismael Alaharakhia.	150 8 0	Incurable disease of sheath and cord.
7	.....	Motiram ...	Do. ...	8th March „ ...	Mr. Virapa Mantri ...	145 0 0	Old and worn out.

J. K. GRAINGER,
Superintendent, Horse-breeding Operations,
Bombay Presidency.

APPENDIX III.

GOVERNMENT OF BOMBAY.

HORSE-BREEDING OPERATIONS.

Statement showing classification and distribution of Horse Stallions attached to the Department of Horse-breeding Operations during the official year 1889-90.

Class of Stallions.	DECCAN.				GUJARÁT.			SIND AND CUTCH.				BELUCHISTAN.			GRAND TOTAL.
	Very good.	Good.	Fair.	Total.	Very good.	Good	Total.	Very good.	Good.	Fair.	Total.	Very good.	Good.	Total.	
Thoroughbred English ...	6	1	...	7	2	...	2	2	1	...	3	3	...	3	15
Half-bred English, including Norfolk Trotters ...	5	...	...	5	...	...	...	5	...	...	5	5	...	5	15
Arab	15	20	2	37	6	3	9	7	7	1	15	9	2	11	72
Pegu	1	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Total ...	27	21	2	50	8	3	11	14	8	1	23	17	2	19	103

J. K. GRAINGER,
Superintendent, Horse-breeding Operations,
Bombay Presidency.

APPENDIX IV.

GOVERNMENT OF BOMBAY.

HORSE-BREEDING OPERATIONS.

Statement showing Cost of Feed, Keep, Attendants, &c., &c., of Horse Stallions in the Bombay Presidency during 1889-90.

Province.	Districts.	Number of Stallions or Days.	Total Annual Cost.	Average per Horse Stallion per annum.	General Average in each Province.
			Rs. a. p.	Rs. a. p.	Rs. a. p.
Deccan ...	Sirúr	2,920	2,564 1 1	320 8 1	
	Supa	1,460	1,297 8 6	324 6 1	
	Bárámati	1,095	1,042 5 3	347 7 1	
	Indápur	1,035	798 11 1	281 10 7	
	Ahmednagar ...	5,368	5,383 10 3	366 1 0	
	Sholápur	951	694 12 3	266 11 5	
	Bijápur	339	306 0 4	329 5 4	
	Belgaum	365	514 6 7	514 6 7	
	Dhárwár	1,792	1,640 5 7	334 1 9	
	Sátára	985	925 1 10	342 12 10	
	Násik	1,385	1,182 3 6	311 8 11	
	Khándesh	2,058	2,029 0 7	359 13 9	
	Total ...	19,753	18,378 2 10	.....	339 9 6
Gujarát ...	Kaira	356	355 15 6	365 15 6	
	Ahmedabad ...	3,593	2,858 10 8	290 6 5	
	Deesa	730	727 1 7	363 8 9	
	Total ...	4,679	3,941 11 9	.....	286 1 10
Sind and Cutch.	Cutch	1,545	1,362 10 3	321 14 8	
	Karáchi	365	360 8 8	360 8 8	
	Thar and Párkar ...	396	432 1 10	398 3 9	
	Hyderabad... ...	1,095	1,036 5 3	345 5 9	
	Jacobabad	3,313	4,664 1 3	415 7 7	
	Shikárpur	2,225	1,892 13 11	310 8 3	
	Total ...	8,939	9,748 9 2	.....	398 0 10
Beluchistán...	Sibi...	3,127	2,988 11 7	348 12 5	
	Quetta	1,019	1,990 0 2	712 12 11	
	Khelát	651	925 0 1	518 1 2	
	Total ...	4,807	5,903 11 10	.....	448 4 4

ABSTRACT.

Provinces.	Average in each Province.
	Rs. a. p.
Deccan	339 9 6
Gujarát	286 1 10
Sind and Cutch	398 0 10
Beluchistán	488 4 4
General Average ...	363 0 6

J. K. GRAINGER,
Superintendent, Horse-breeding Operations,
Bombay Presidency.

APPENDIX VI.

GOVERNMENT OF BOMBAY.

Horse-breeding Operations.

Index to the Map of Horse-breeding Operations in the Bombay Presidency and Beluchistán, during the year 1889-90.

Number.	Name of Stallion Stands.	Class of Horse and Pony Stallions at each Stand.				Total.			Number of branded Mares remaining on 1st April 1890.		Number of branded Mares covered during 1889-90.		Average number of branded Mares covered per Stallion.		Remarks.
		T. B. E.	N. T. E.	Arab.	Pegu.	Horse.	Pony.	Total.	Horse.	Pony.	Horse.	Pony.	Horse.	Pony.	
1	Sirur	2	2	3	...	5	2	7	201	137	199	100	39·8	50	
2	Supa	...	...	4	...	2	2	4	182	123	89	88	44·5	44	
3	Bárámati	...	1	2	...	1	2	3	55	37	42	50	42	16·6	
4	Indápur	...	...	2	...	1	1	2	54	59	33	31	33	31	
5	Ahmednagar... ...	4	2	2	...	6	2	8	158	125	94	50	15·6	25	
6	Shrigonda	...	...	2	...	1	1	2	149	446	16	20	16	20	
7	Ráhuri	1	...	...	...	1	...	1	101	554	39	...	39	...	
8	Kopargaon	...	...	1	...	...	1	1	...	...	...	28	...	28	
9	Nevása	...	...	2	...	...	2	2	27	432	...	44	...	22	
10	Sholápur	...	...	1	...	1	...	1	34	78	18	...	18	...	
11	Sángola	...	...	1	...	1	...	1	125	199	25	...	...	...	
12	Bijápur	...	...	1	...	...	1	1	...	1	....	10	..	10	
13	Athni...	...	...	1	...	...	1	1	1	3	...	38	...	38	
14	Dhárwár	...	...	3	1	...	4	4	1	409	...	48	...	12	
15	Vita	...	...	1	...	1	...	1	15	200	...	20	...	20	
16	Dahivadi	...	...	1	...	...	1	1	12	116	...	25	...	25	
17	Násik...	...	...	1	...	...	1	1	3	246	...	19	...	19	
18	Málegaon	...	...	1	...	...	1	1	...	402	...	32	...	32	
19	Yeola	...	...	1	...	...	1	1	2	94	...	25	...	25	
20	Nándgaon	...	...	1	...	...	1	1	1	43	...	21	...	21	
21	Dhulia	...	...	2	...	...	2	2	19	486	...	27	...	13·5	
22	Chálisgaon	...	...	1	...	...	1	1	13	34	...	30	...	30	
23	Jámner	...	...	1	...	1	...	1	39	226	...	15	...	15	
24	Shirpur	...	...	1	...	...	1	1	4	638	...	6	...	6	
25	Chopda	...	...	1	...	...	1	1	4	242	...	10	...	10	
26	Kaira...	...	...	1	...	1	...	1	109	222	57	...	57	...	
27	Ahmedabad	1	...	3	...	2	2	4	347	376	96	92	48	46	
28	Dhandhuka	...	...	2	...	2	...	2	2	1	33	...	16·5	...	
29	Parántij	...	...	2	...	1	1	2	61	189	34	27	34	27	
30	Deesa...	1	...	1	...	1	1	2	392	143	15	55	15	55	
31	Bhúj	1	1	2	...	4	...	4	510	10	135	...	33·75	...	
32	Shewan	...	...	1	...	1	...	1	3	...	34	...	34	...	
33	Kandiáro	...	...	1	...	1	...	1	...	...	33	...	33	...	
34	Moro	...	...	1	...	...	1	1	60	...	...	17	...	17	
35	Naushahro	...	...	1	...	1	...	1	12	...	31	...	31	...	
36	Umarkot	...	...	1	...	1	...	1	26	1	50	...	50	...	
37	Shikárpur	...	...	2	...	2	...	2	180	...	56	...	28	...	
38	Mirpur	...	...	1	...	1	...	1	62	11	13	...	13	...	
39	Lárkhána	...	...	1	...	1	...	1	302	3	6	...	6	...	
40	Mehar	...	...	1	...	1	...	1	162	...	38	...	38	...	
41	Jacobabad	2	4	3	...	8	1	9	821	99	315	41	39·375	41	
42	Sibi	2	3	2	...	7	...	7	534	13	159	...	22.71	...	
43	Lehri	...	...	2	...	2	...	2	70	...	51	...	25·5	...	
44	Fuleji..	...	...	1	...	1	...	1	...	...	67	...	67	...	
45	Zal	...	...	2	...	2	...	2	...	...	12	...	6	...	
46	Duki	...	1	...	...	1	...	1	...	...	12	...	12	...	
47	Khahan	...	...	1	...	1	...	1	62	...	13	...	13	...	
48	Quetta	...	1	2	...	3	...	3	48	...	167	...	55·6	...	
49	Peshin	1	...	1	...	2	...	2	...	...	105	...	52·5	...	

J. K. GRAINGER,
Superintendent, Horse-breeding Operations,
Bombay Presidency

APPENDIX VII.

GOVERNMENT OF BOMBAY.

MULE-BREEDING OPERATIONS.

Index to the Map of Mule-breeding Operations in the Bombay Presidency and Beluchistán during the Official year 1889-90.

Number of Donkey Stallion Stand.	Name of Donkey Stallion Stand.	Class of Donkey Stallion at each Stand.								Number of Mares remaining on 1st April 1890.	Number of Mares covered during 1889-90.	Average number of Mares covered per Stallion.	Remarks.
		Khorásan.	Arab.	Italian.	Bokhára.	Persian.	Khurdistán.	Cyprus.	Total.				
1	Sirúr	...	...	1	...	...	...	...	1	...	19	19	
2	Kandiáro	...	...	1	...	...	...	...	1	...	48	48	
3	Naushahro	...	...	...	1	...	...	...	1	3	48	48	
4	Umarkot	...	1	...	...	...	...	...	1	...	28	28	
5	Shikárpur	...	...	2	...	2	1	...	5	75	130	26	
6	Rohri...	...	...	...	...	...	...	1	1	13	14	14	
7	Ghotki	1	...	...	...	...	...	...	1	1	23	23	
8	Mirpur	...	...	...	...	...	1	...	1	78	26	26	
9	Lárkhána	...	1	...	...	1	...	...	2	111	84	42	
10	Mehar	...	1	1	...	...	...	...	2	230	98	49	
11	Kakkar	...	1	...	...	...	...	...	1	10	32	32	
12	Jacobabad	...	...	4	...	1	...	1	6	140	266	44·3	
13	Khahan	..	...	...	1	...	...	...	1	1	5	5	

J. K. GRAINGER,

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Bombay Presidency.

APPENDIX VIII.

GOVERNMENT OF BOMBAY.

HORSE-BREEDING OPERATIONS.

Statement showing where each Horse Stallion was stationed, and how many Mares he covered during the official year 1889-90.

Serial Number.	Name and Class of Horse Stallions.		Name of Stand at which stationed.	Number of days at each Stand.	Number of days in Hospital.	Number of Mares covered at each Stand.	Total Number of Mares covered during 1889-90.	Remarks, showing reasons why the full complement of Mares was not covered.
	Name.	Class.						
1	T. O'Shanter	T. B. E. ...	Sirúr	365	...	36	36	This horse is getting old and orders have been given that he is not to get the full complement of mares.
2	Opal	Do. ...	Do.	365	...	50	50	
3	Luminary	N. T. E. ...	Do.	365	...	24	24	
4	Review	Do. ...	Do.	365	...	49	49	
5	Orator	Arab ...	Do.	365	...	40	40	
6	Pradhán	Do. ...	Do.	365	...	50	50	
7	Hakim	Do. ...	Do.	365	...	50	50	
8	Zamindár	Do. ...	Supa	365	...	39	39	
9	Hector	Do. ...	Do.	365	...	44	44	
10	Chinkara	Do. ...	Do.	365	...	44	44	
11	Latchkey	Do. ...	Do.	365	...	50	50	
12	Young Freedom ...	N. T. E. ...	Bárámati ...	365	...	42	42	
13	Tánnáji	Arab ...	Do. ...	365	...	27	27	
14	Rocket	Do. ...	Do. ...	365	...	23	23	
15	Kumáyat	Do. ...	Indápur	365	...	27	27	
16	Ormonde	Do. ...	Do.	365	...	31	31	
17	Teelwell	N. T. E. ...	Do.	305	...	6	6	Would not cover: therefore transferred to Bábugarh.
18	Altcar...	T. B. E. ...	Ahmednagar ...	365	...	13	13	Depôt stallions.
19	Adonis	Do. ...	Do. ...	337	28	13	13	
20	Dogabert	Do. ...	Do. ...	331	34	12	12	
21	Wisechild	Do. ...	Do. ...	351	14	13	13	
22	Model...	N. T. E. ...	Do. ...	316	49	23	23	
23	Merrylegs	Do. ...	Do. ...	322	32	20	20	
24	Sailor Boy	Arab ...	Do. ...	365	...	24	24	
25	Sirdár...	Do. ...	Do. ...	320	45	26	26	
26	Friendship	Do. ...	Shrigonda ...	365	...	16	16	Mares are not brought to the stallion owing to scarcity of forage.
27	Mainstay	Do. ...	Do. ...	365	...	20	20	Do. do.
28	Glendale	Do. ...	Kópargaon ...	365	...	28	28	
29	Mystic	Do. ...	Nevása	365	...	26	26	
30	Deshmookh	Do. ...	Do. ...	365	...	18	18	Do. do.
31	Allan Bane	T. B. E. ...	Ráhuri	365	...	39	39	
32	Mootrib	Arab ...	Sángola	365	...	25	25	
33	Nuzzer	Do. ...	Sholápur ...	365	...	18	18	Do. do.
34	Motirám	Do. ...	Bijápur	339	...	10	10	Had become impotent and therefore sold on 8th March 1890.
35	March	Do. ...	Do. ...	33	...	...	8	See remark in the body of the Report.
			Dhárwár ...	332	...	8		
36	Rizak...	Do. ...	Athni	365	...	38	38	Do. do.
37	Tippoo	Do. ...	Dhárwár ...	365	...	9	9	
38	Moochel	Do. ...	Do. ...	365	...	2	2	
39	February	Do. ...	Do. ...	365	...	17	17	
40	Diamond	Pegu ...	Do. ...	365	...	12	12	
41	Kingcraft	Arab ...	Vita	274	...	13	20	Owing to the scarcity of forage very few mares were brought forward.
			Tásgaon ...	91	...	7		
42	Spider	Do. ...	Dahivádi ...	332	...	20	25	
			Shingnápur ...	11	...	2		
			Mhasvad ...	22	...	3		
43	Multum	Do. ...	Násik	365	...	19	19	Do. do.
44	Cruiser	Do. ...	Málegaon ...	365	...	32	32	
45	Clipper	Do. ...	Yeola	212	...	12	25	
			Ahmednagar ...	147	...	13		
46	Cyclone	Do. ...	Nándgaon ...	365	...	21	21	

APPENDIX VIII.—*continued.*

Serial Number.	Name and Class of Horse Stallions.		Name of Stand at which stationed.	Number of days at each Stand.	Number of days in Hospital.	Number of Mares covered at each Stand.	Total Number of Mares covered during 1889-90.	Remarks, showing reasons why the full complement of Mares was not covered.
	Name.	Class.						
47	Monk	Arab ...	Dhulia	79	...	...	7	Mares are not brought to the stallions.
			Koregaon	255	7	7		
48	Nána	Do. ...	Dhulia	118	...	6	6	
			Shirpur	247	...	...		
49	Pinto	Do. ...	Chálisgaon	365	...	30	30	
50	Kaldar	Do. ...	Jámner	365	...	15	15	
51	Torpedo	Do. ...	Shirpur	116	...	2	20	
			Dhulia	249	...	18		
52	Grey Friar	Do. ...	Chopda	262	...	8	10	
			Sávda...	103	...	2		
53	Melton	Do. ..	Kaira...	365	...	57	57	
54	Hampton	T. B. E. ...	Ahmedabad	365	...	31	31	
55	Harvester	Arab ...	Do.	365	...	20	20	
56	January	Do. ...	Do.	365	...	45	45	
57	Angrya	Do. ...	Do.	365	...	47	47	
58	Rufus	Do. ...	Do.	51	...	3	14	Sold, 6th January 1890.
			Pátadi	192	...	11		
59	Lachin	Do. ...	Ahmedabad	334	27	31	31	Died, 28th February 1890.
60	Scindia	Do. ...	Do.	10	...	4	34	
			Paráutej	355	...	30		
61	Tahlim	Do. ...	Dhandhuka	356	...	15	17	
			Ahmedabad	9	...	2		
62	Hassan	Do. ...	Paráutej	354	...	22	27	
			Ahmedabad	11	...	5		
63	Kohinoor	Do. ...	Dhandhuka	354	...	15	16	
			Ahmedabad	11	...	1		
64	Cottenham	T. B. E. ...	Deesa	365	...	15	15	The majority of mares being small the horse was removed to Ahmedabad.
65	Majeeb	Arab ...	Do.	365	...	55	55	
66	Dispatch	N. T. E. ...	Bhúj	365	...	38	38	
67	Elzevier	T. B. E. ...	Do.	365	...	37	37	
68	Lord Napier	Arab ...	Do.	350	15	31	31	
69	Glenmore	Do. ...	Do	264	30	23	29	
			District	71	...	6		
70	Shammer	Do. ...	Shewan	365	...	34	34	
71	Khatan	Do. ...	Umarkot	365	...	50	50	
72	Eureka	Do. ...	Kandiáro	365	...	33	33	
73	Dwárka	Do. ...	Naushahro	365	...	31	31	
74	Paradox	Do. ...	Moro	172	41	7	17	
			Naushahro	74	...	5		
			Hyderabad	73	...	5		
75	Nicholas	Do. ...	Shikárpur	65	...	..	63	
			Lárkhána	62	...	34		
			Jacobabad	184	53	29		
76	Glencoe	Do. ...	Do.	127	...	33	38	
			Shikárpur	35	...	...		
			Mehar...	92	...	5		
77	Shahar	Do. ...	Shikárpur	29	...	...	13	
			Mujum	336	...	13		
78	Waverly	Do. ...	Shikárpur	95	...	25	37	
			Lárkhána	270	...	12		
79	Royal Visit... ...	Do. ...	Shikárpur	36	...	14	19	
			Mehar	329	...	5		
80	Cupid	N. T. E. ...	Jacobabad	260	...	41	44	
			Kashmoor	56	49	3		
81	Contract	Do. ...	Jacobabad	330	45	44	44	
82	Planet	Do. ...	Do.	69	...	10	10	Died, 13th June 1889.
83	Sir Frank	Arab ...	Do.	310	...	38	47	
			Thul	39	16	9		
84	Gold Mohor	Do. ...	Jacobabad	350	15	46	46	
85	Mars...	Do. ...	Do.	276	...	31	41	
			Thul	61	28	10		
86	Sir Peter	N. T. E. ...	Jacobabad	51	...	3	50	
			Thul	314	...	47		
87	Shrewsbury	T. B. E. ...	Jacobabad	133	64	24	37	
			Sibi	22	...	5		
			Loralai	140	...	8		

APPENDIX VIII.—*continued.*

Serial Number.	Name and Class of Horse Stallions.		Name of Stand at which stationed.	Number of days at each Stand.	Number of days in Hospital.	Number of Mares covered at each Stand.	Total Number of Mares covered during 1889-90.	Remarks, showing reasons why the full complement of Mares was not covered.
	Name.	Class.						
88	Sobersides	T. B. E. ...	Jacobabad	131	...	21	21	Received on 31st November 1889.
89	Trustee	N. T. E. ...	Shikárpur	234	...	...	16	
			Jacobabad	68	29	7		
			Kashmor	34	...	9		
90	Duncan	T. B. E. ...	Sibi	116	...	11	29	
			Loralai	15	...	9		
			Duki	190	...	2		
			Lehri	22	...	7		
91	Sir James	N. T. E. ...	Sibi	51	...	11	38	
			Duki	222	...	15		
			Rindli	92	...	12		
92	Beaver	Arab ...	Sibi	29	...	8	67	
			Lehri	317	...	47		
			Fuleji...	19	...	12		
93	Cyprus	Do. ...	Sibi	17	...	3	26	
			Lehri	53	...	4		
			Dera Bugti	275	...	19		
			Zal	20	...	...		
94	Essau bin Curtas ...	Do. ...	Sibi	17	...	3	25	
			Lehri	53	...	4		
			Dera Bugti	275	...	18		
			Zal	20	...	...		
95	Ameer	Do. ...	Sibi	64	...	4	49	
			Zal	84	2	7		
			Quetta	107	25	25		
			Jacobabad	83	...	13		
96	Sir Francis	T. B. E. ...	Sibi	74	...	8	35	
			Zal	52	...	4		
			Peshin	127	...	23		
97	Songster	Do. ...	Sibi	152	...	16	56	
			Peshin	182	...	40		
98	Jasper	Arab ...	Sibi	89	...	4	49	Transferred to Lahore.
			Quetta	204	...	45		
99	Jhang	Do. ...	Sibi	74	...	6	6	Received on 17th January 1890.
100	Sportsman III ...	N. T. E. ...	Do.	74	...	11	11	Do. do.
101	Midnight	Do. ...	Do.	58	...	8	12	
			Duki	12	...	4		
102	Reliance II	Do. ...	Sibi	74	...	4	4	
103	Brunno	Do. ...	Do.	80	...	5	62	
			Quetta	204	...	57		
104	Akola...	Arab ...	Sibi	64	...	7	7	Received on 17th January 1890.
105	Rejeb...	Do. ...	Do.	74	...	11	11	Do. do.
106	Auchincruine ...	T. B. E. ...	Do.	17	...	6	25	Transferred to Lahore.
			Quetta	169	...	19		
107	Jangi Sowar... ...	Arab ...	Sibi	63	...	8	13	
			Khahan	11	...	5		
108	Kohilan	Do. ...	Sibi	17	...	4	49	
			Zal	285	...	35		
			Quetta	23	...	10		
109	Kaitan	Do. ...	Sibi	53	...	3	5	Received on 17th January 1890.
			Zal	21	...	2		
110	Sham Shere	Do. ...	Sibi	53	...	5	7	Received on 1st January 1890.
			Zal	21	...	2		

J. K. GRAINGER,
Superintendent, Horse-breeding Operations,
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APPENDIX IX.

GOVERNMENT OF BOMBAY.

MULE-BREEDING OPERATIONS.

Statement showing where each Donkey Stallion was stationed, and how many Mares he covered during 1889-90.

Number.	Name and Class of Donkey Stallion.		Name of Stand where stationed.	Number of days at each Stand.	Number of days in Hospital.	Number of Mares covered at each Stand.	Total Number of Mares covered during 1889-90.	Remarks, showing reasons why the full complement of Mares was not covered.
	Name.	Class.						
1	Patwarri ...	Italian ...	Sirúr	365	...	19	19	
2	Pindi... ...	Do. ...	Kandiáro	365	...	48	48	
3	Kandahari ...	Bokhára ...	Naushahro	365	...	48	48	
4	Boanerges ..	Arab	Umarkot	365	...	28	28	
5	Gopiganj ...	Italian ...	Shikárpur	365	...	39	39	
6	Gohana ...	Do. ...	Do.	332	...	...	...	Transferred to Bábugarh to learn the work.
7	John	Persian ...	Do.	365	...	56	56	
8	Bhag	Khurdistán ...	Do.	365	...	3	3	Always sickly.
9	Kullu ...	Persian ...	Do.	365	...	32	32	
10	Shah Ferid ...	Do. ...	Lárkhána	365	...	35	35	
11	Neddy ...	Arab	Do.	365	...	49	49	
12	Banerji ...	Persian ...	Mirpur	365	...	26	26	
13	Achnera ...	Cyprus ...	Rohri	365	...	14	14	
14	Changi ...	Khorásan ...	Ghotki	365	...	23	23	
15	Behra ...	Arab	Mehar	365	...	31	31	
16	Hafijganj ...	Italian ...	Do. ... ... Jacobabad	60 292	... ...	23 44	67	
17	Balaam ...	Arab	Kukkur	365	...	32	32	
18	Socrates ...	Persian ...	Jacobabad	365	...	52	52	
19	Jack	Do. ...	Do.	237	...	26	26	Destroyed, 17th January 1890.
20	Kamarputta...	Italian ...	Do.	153	...	28	28	Transferred to Bábugarh for treatment.
21	Ramghat ...	Cyprus ..	Do. ... ... Thul	304 61	... ...	52 6	58	
22	Bagput ...	Italian ...	Jacobabad ... ... Thul	326 39	... ...	44 2	46	
23	Colombo ...	Do. ...	Jacobabad ... ... Thul ... ... Kashmor	51 214 100	... ...	3 27 11	41	
24	Khandoba ...	Do. ...	Jacobabad ... ... Shikárpur	73 292	... ...	15 ...	15	
25	Jeeramji ...	Persian ...	Kháhan	74	...	5	5	Received on 15th January 1890.

J. K. GRAINGER,

Superintendent, Horse-breeding Operations,
Bombay Presidency.

APPENDIX X.

GOVERNMENT OF BOMBAY.

HORSE-BREEDING OPERATIONS.

Annual Return of Stock in the Bombay Presidency during the official year ending 31st March 1890.

Details.	Government Horse Stallions.						Government Donkey Stallions.								Branded Mares, the property of Breeders.			Remarks.
	Thoroughbred English.	Half-bred English, Norfolk including Trotters.	Pegu Pony.	Arab Horse.	Arab Pony.	Total.	Arab.	Bokhára.	Italian.	Persian.	Khorásán.	Cyprus.	Khurdistán.	Total.	For Horse-breeding.	For Pony-breeding.	For Mule-breeding.	
Balance on the 1st April 1889... ...	11	12	1	35	37	96	5	1	9	6	1	2	1	25	4,966	5,712	747	
Increase. Received by transfer from Bengal Register... ...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	
Increase. Branded during the year ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	375	703	142	
Total ...	12	12	1	35	37	97	5	1	9	6	1	2	1	25	5,341	6,415	889	
Decrease. Died	...	1	...	3	...	4	...	...	...	...	...	...	...	...	13	11	...	
Decrease. Destroyed	...	...	...	...	...	...	1	...	...	1	...	...	...	2	...	...	...	
Decrease. Sold...	...	...	...	4	3	7	...	...	...	...	...	...	...	...	...	...	...	
Decrease. Transferred to other Districts	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	
Decrease. Transferred to Bengal ...	...	1	...	1	...	2	...	...	...	...	...	...	...	...	...	...	...	
Decrease. Struck off the Register ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	355	6	227	
Total ...	...	2	...	8	3	13	1	...	...	1	...	...	...	2	369	17	227	
Balance on 31st March 1890	12	10	1	27	34	84	4	1	9	5	1	2	1	23	4,972	6,398	662	
Total of each Class ...	84						23								4,972	6,398	662	
Deccan ...	50						1								1,200	5,330	...	
Gujarat	11						...								911	931	...	
Sind and Cutch ...	23						22								2,138	124	661	
Baluchistan	...						...								723	13	1	
Total ...	84						23								4,972	6,398	662	

J. K. GRAINGER,
Superintendent, Horse-breeding Operations.

APPENDIX XI.

GOVERNMENT OF BOMBAY.

HORSE-BREEDING OPERATIONS.

General Statement showing the Results of the year's Operations during the official year 1889-90.

Province.	Number of branded Mares, the Property of Breeders, remaining on the Register on 31st March 1890.	Number of branded Mares, the Property of Breeders, covered by Government Stallions.		Number of Government Horse Stallions employed at Stud work.		Average number of branded Mares, covered in 1889-90, per Stallion employed during the year.	Number of Stock, the Property of Breeders, got by Government Stallions foaled during the year 1889-90, result of covering of 1888-89.												Number of Mares covered in 1888-89, the results of which are known.	Number of Government Stallions employed in 1888-89, the results of which with regard to coverings are known.	Percentage of produce foaled during 1889-90 to Mares covered in 1888-89.	Average number of produce foaled during 1889-90 per Stallion employed at stud work in 1888-89.
							Colts.						Fillies.									
		During 1888-89.	During 1889-90.	During 1888-89.	During 1889-90.		T. B. E.	N. T. E.	Australian.	Arab.	Pegu.	Total.	T. B. E.	N. T. E.	Australian.	Arab.	Pegu.	Total.	Grand Total.				
Deccan and Khándesh...	6,530	1,480	1,322	41·8	41·39	31·94	14	19	...	221	1	255	23	17	...	170	3	213	468	1,292	35·8	36·22	13·07
Gujarát	1,842	390	409	14·25	11·	37 18	1	...	...	23	...	24	1	...	...	28	...	29	53	290	10·25	18·27	5·17
Sind and Cutch... ...	2,262	996	826	24·15	20·10	41·09	8	28	...	81	...	117	4	10	...	76	...	90	207	550	13·10	37·63	15·80
Beluchistán	736	413	586	15·15	13·17	44·49	13	1	...	9	...	23	5	2	...	11	...	18	41	150	5·	27·3	8·2
Total ...	11,370	3,282	3,113	92·35	85·66	36·34	36	48	...	334	1	419	33	29	...	285	3	350	769	2,282	64·15	33·61	11·83

J. K. GRAINGER,
Superintendent, Horse-breeding Operations,
Bombay Presidency.

APPENDIX XII.

GOVERNMENT OF BOMBAY.

HORSE-BREEDING OPERATIONS.

Statement showing the number of mares cast from Corps and Batteries and sold to bonâ-fide *Breeders for breeding purposes during 1889-90.*

No.	Brand Number.	Colour.	From whence cast.		Date of Sale.	Sold for Horse or Mule breeding.	Name of Purchaser.	Price.	Remarks.
			Corps and Batteries.	Station.					
								Rs. a. p.	
1	618	Bay ...	6th Bombay Cavalry.	Quetta.	20th February 1890.	Horse-breeding.	Sirdár Kaisar Khán of Zal, Cutch.	500 0 0	

ABSTRACT.

Provinces.	Number of Mares.	Amount.	Average.
		Rs. a. p.	Rs. a. p.
Beluchistán	1	500 0 0	500 0 0

J. K. GRAINGER,
Superintendent, Horse-breeding Operations,
Bombay Presidency.

APPENDIX XIII.

GOVERNMENT OF BOMBAY.

HORSE-BREEDING OPERATIONS.

Statement of Remounts purchased during the official year 1889-90.

Presidency.	Remounts purchased by	Number of Remounts purchased.				Ages of Remounts purchased.										Breeds of Remounts purchased.				Remarks.
		Horses.	Mares.	Geldings.	Total.	Under 1 year.	1 and under 1½ year.	1½ and under 2 years.	2 years and over.	3 years and over.	4 years and over.	5 years and over.	6 years and over.	7 years and over.	8 years and over.	Total.	Produce of Government Stallions.	Class of Sires not known.	Country-bred.	Total.	
Bombay ...	Army Remount Department ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Bombay Native Cavalry ...	153	34	65	252	...	...	...	24	67	85	50	13	10	3	252	64	27	161	252	
	Police, Northern Division ...	11	3	1	15	...	...	...	1	2	3	7	1	1	...	15	5	...	10	15	
	Police, Central Division ...	7	1	1	9	...	...	...	...	2	5	...	1	...	1	9	2	2	5	9	
	Police, Southern Division ...	3	2	...	5	...	...	...	...	1	2	2	...	...	...	5	1	3	1	5	
	Police in Sind	99	12	3	114	...	...	...	...	...	14	28	9	9	4	64	6	13	95	114	Information regarding ages of purchases at Thar and Párkar has not been received.
	Ahmednagar Remount Rearing Depôt	14	14	...	28	...	...	...	17	8	3	...	...	...	...	28	26	2	...	28	
	Total ...	287	66	70	423	...	...	...	42	80	112	87	24	20	8	373	104	47	272	423	

J. K. GRAINGER,
Superintendent, Horse-breeding Operations,
Bombay Presidency.

APPENDIX XIV.

GOVERNMENT OF BOMBAY.

HORSE--BREEDING OPERATIONS.

Statement showing the Number of Colts, the property of Zamindárs, castrated by District Sálutris and Castrators in the Bombay Presidency Horse-breeding Districts during 1889-90.

Province.	District.	Number of Colts castrated.	Number of Deaths resulting from effects of operation.	REMARKS.
Deccan... ...	Poona	19	.....	
	Ahmednager	16	.....	
	Khándesh	20	.....	
Gujarát	Ahmedabad	2	.....	
Sind	Shikárpur...	6	.....	
Beluchistán ...	Sibi	5	.....	
	Quetta	4	.....	
		72	.....	

APPENDIX XV.

GOVERNMENT OF BOMBAY.

MULE-BREEDING OPERATIONS.

Casualty Roll of Donkey Stallions during the official year 1889-90.

No.	Name.	Breed.	Description of Casualty.	Date of Casualty.	Nature of Casualty.
1	Jack...	Persian .	Destroyed	17th January 1890.	Was suffering from incurable disease of testicles and penis.
2	Moti	Arab ...	Do. ...	Do. ...	Do. do.

ABSTRACT.

Province.	District.	Number died.	Number destroyed.	Total	Average death.	Average destroyed.	General Average.	REMARKS.
Sind ...	Shikárpur ...	...	2	2	...	8·69	8·69	

J. K. GRAINGER,
Superintendent, Horse-breeding Operations,
Bombay Presidency.

APPENDIX XVI.

GOVERNMENT OF BOMBAY.

MULE-BREEDING OPERATIONS.

Statement showing the Classification and Distribution of Donkey Stallions attached to the Department of Horse-breeding Operations during the official year 1889-90.

Class of Stallions.	DECCAN.		SIND AND CUTCH.				BELUCHISTAN.		Grand Total.	REMARKS.
	Fair.	Total.	Very Good.	Good.	Fair.	Total.	Good.	Total.		
Bokhára ...	...	...	1	...	...	1	...	...	1	
Khorásan ...	...	...	1	...	...	1	...	...	1	
Italian ...	1	1	5	2	1	8	...	...	9	
Persian ...	...	...	4	1	...	5	1	1	6	
Cyprus ..	...	...	1	1	...	2	...	...	2	
Khurdistan ...	...	...	1	...	...	1	...	...	1	
Arab ...	...	...	...	3	1	4	...	...	4	
Total ...	1	1	13	7	2	22	1	1	24	

J. K. GRAINGER,
Superintendent, Horse-breeding Operations,
Bombay Presidency.

APPENDIX XVII.

GOVERNMENT OF BOMBAY.

MULE-BREEDING OPERATIONS.

Statement showing Cost of Feed, Keep, Attendants, &c., &c., of Donkey Stallions in the Bombay Presidency during 1889-90.

Province and District.	Number of Stallions or Days.	Total Annual Cost.	Average per Donkey Stallion per annum.	General Average in each Province.	REMARKS.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	
DECCAN. Sirúr	365	238 14 6	238 14 6	.....	
Total ...	365	238 14 6	.....	238 14 6	
SIND. Hyderabad	730	511 15 1	255 15 6	.....	
Umarkot	365	138 2 3	138 2 3	.....	
Shikárpur	5,039	3,486 9 6	252 9 11	.....	
Jacobabad	2,106	1,999 14 9	346 2 3	.....	
Total ...	8,240	6,136 9 7	.....	271 13 3	
BELUCHISTAN. Sibi	74	45 5 1	223 8 5	.....	
Total ...	74	45 5 1	.....	223 8 5	

ABSTRACT.

Province.	Average in each Province.
	Rs. a. p.
Deccan	238 14 6
Sind	271 13 3
Beluchistan	223 8 5
General Average ...	270 5 5

J. K. GRAINGER,
Superintendent, Horse-breeding Operations,
Bombay Presidency.

APPENDIX XVIII.

GOVERNMENT OF BOMBAY.

MULE-BREEDING OPERATIONS.

General Statement showing Results of the year's Operations during the official year 1889-90.

Serial Number.	Provinces.	Mares covered.		Number of Government Donkey Stallions employed in the Stud-work.		Average number of Mares covered during 1889-90 per Stallion employed in the year.	Mules by Government Donkey Stallions foaled during the year.														Number of Mares covered in 1888-89 the results of which are known.	Number of Government Donkey Stallions employed in 1888-89 the results of which as regards coverings are known.	Percentage of produce foaled during 1889-90 to Mares covered in 1888-89.	Average number of produce foaled during 1889-90 per Stallion employed in 1888-89.
							Colt Mules.							Filly Mules.							Grand Total.				
		During 1888-89.	During 1889-90.	During 1888-89.	During 1889-90.		Arab.	Khorásan.	Cyprus.	Italian.	Bokhára.	Persian.	Total.	Arab.	Khorásan.	Cyprus.	Italian.	Bokhára.	Persian.	Total.					
1	Deccan	47	19	2·15	1	19	...	...	...	3	...	...	3	...	...	...	4	...	...	4	7	47	1	14·89	7
2	Sind	838	797	19·25	19	41·94	3	4	9	16	1	4	37	1	1	12	8	1	6	29	66	350	12·25	18·57	5·38
3	Beluchistán	5	5	·78	·20	25	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	*
	Total ...	890	821	22·18	20·20	40·64	3	4	9	19	1	4	40	1	1	12	12	1	6	33	73	397	13·25	18·38	5·50

* Returns not received.

J. K. GRAINGER,
Superintendent, Horse-breeding Operations,
Bombay Presidency.

APPENDIX XIX.

GOVERNMENT OF BOMBAY.

HORSE-BREEDING OPERATIONS.

General Statement showing the Horse Shows held during the year 1889-90.

No.	Station.	Date.	Number exhibited.	Prizes.		Other Expenses incurred.	Total Expenses.	Portion thereof paid by Government.	Remarks.
				Number.	Value.				
					Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
1	Poona	24th September 1889 ...	233	97	2,887 0 0	1,096 0 6	3,983 0 6	2,000 0 0	
2	Ahmedabad	24th to 27th March 1890 ...	637	86	2,270 0 0	1,249 2 11	3,519 2 11	2,000 0 0	
3	Rájkot	9th to 14th December 1889 ...	610	100	2,025 0 0	2,421 8 9	4,446 8 9	600 0 0	
4	Shikárpur	13th to 16th January 1890 ...	784	225	4,230 0 0	1,707 6 1	5,937 6 1	2,000 0 0	
5	Sibi	24th to 27th February 1890 ...	753	179	2,248 0 0	385 15 0	2,633 15 0	*1,000 0 0	*Paid by the Government of India.
		Total ...	3,017	687	13,660 0 0	6,860 1 3	20,520 1 3	7,600 0 0	

J. K. GRAINGER,
Superintendent, Horse-breeding Operations,
Bombay Presidency.

APPEDIX XX.

GOVERNMENT OF BOMBAY.

HORSE-BREEDING OPERATIONS.

General Statement of Expenditure during the Official year 1889-90.

Number.	Heads of Expenditure.	Pay.	Travelling Allowance.	Service Stamps.	Telegrams.	Office-rent.	Petty Supplies and Purchase of Office Furniture.	Carriage of Tents and Office Records.	Cost of Feed, &c., &c.				Grand Total.	Remarks.
									Debited to Local Funds.	Debited to Provincial.	Paid by Government of India.	Total.		
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
1	Superintendent	4,800 0 0	1,943 2 10	.....	...	.....	.....	.....	.....	.....	.....	.....	6,743 2 10	
2	Office Establishment	2,112 0 0	689 14 3	.....	...	.....	.....	.....	.....	.....	.....	.....	2,801 14 3	
3	Inspectors	1,140 0 0	449 4 0	.....	...	.....	.....	.....	.....	.....	.....	.....	1,589 4 0	
4	Castrators	1.320 0 0	210 10 0	.....	...	.....	.....	.....	.....	.....	.....	.....	1,530 10 0	
5	Office expenses	.....	.....	100 0 0	53 11 0	240 0 0	45 0 0	509 14 6	.....	.....	.....	.....	948 9 6	
6	Stallions' keep, &c.	.....	.....	.....	...	.....	.....	.....	14,602 1 8	17,466 6 1	5,903 11 10	37,972 3 7	37,972 3 7	
7	Donkeys' do.	.....	.....	.....	...	.....	.....	.....	2,840 14 7	35,34 9 6	45 5 1	6,420 13 2	6,420 13 2	
8	Horse Shows	.....	.....	.....	...	.....	.....	.....	.....	.....	.....	.....	7,600 0 0	
	Total ...	9,372 0 0	3,292 15 1	100 0 0	53 11 0	240 0 0	45 0 0	509 14 6	17,443 0 3	21,000 15 7	5,949 0 11	44,393 0 9	65,606 9 4	

J. K. GRAINGER,
Superintendent, Horse-breeding Operations,
Bombay Presidency.

BOMBAY: PRINTED AT THE GOVERNMENT CENTRAL PRESS.

Annual Administration Report of the Department of Horse-Breeding Operations for 1889-90.

No. 7961.

REVENUE DEPARTMENT.

Bombay Castle, 8th November 1890.

Letter from the Superintendent of Horse-Breeding Operations, No. 860, dated 5th July 1890—Submitting the Annual Administration Report of the Department of Horse-Breeding Operations in the Bombay Presidency and Beluchistán for the year 1889-90.

RESOLUTION.—Mr. Grainger's tour during the year under review comprised all the districts of the Deccan except Sátára, as also Ahmedabad, Shikárpur, Upper Sind Frontier, Beluchistán, Cutch and Pálanpur. The Southern Marátha Country Districts were not visited during the year. In a separate Resolution the Superintendent of Horse-Breeding Operations has been directed to visit the Dhárwár District during the current season and report the results of his visit.

2. The total number of horse stallions (excluding those stationed in Beluchistán) on the roll on 1st April 1889 was 96, of which 4 died during the year under review, 7 were sold as being unfit for stud purposes, and one was transferred to Bengal. One new stallion was received from Bengal during the year in exchange for one sent to Beluchistán from the Bombay establishment. There remained thus 84 on the roll on the 31st March 1890, of which 12 were thoroughbred English, 10 Norfolk trotters, 61 Arab and 1 Pegu. Fifty stallions were located in the Deccan, 11 in Gujarát and 23 in Sind and Cutch. Including 19 stationed in Beluchistán the total number of horse stallions in charge of the Superintendent of Horse-Breeding Operations at the close of the year was 103, of which 68 were horses and 35 ponies. Of the stallions 66 are classed as very good, 34 good and 3 fair.

3. The following table shows the results of the year under review as regards the branding of mares as compared with those of the previous year, the total number of branded mares in the Presidency as it stood at the close of the year and the average number per stallion:—

	Number branded in 1888-89.			Number branded in 1889-90.			Total number of branded mares on the register.			Average number of branded mares per stallion.
	Horse.	Pony.	Total.	Horse.	Pony.	Total.	Horse.	Pony.	Total.	
Deccan	45	420	465	83	623	706	1,200	5,330	6,530	130
Gujarát	*4	*109	*113	18	67	85	911	931	1,842	167
Sind and Cutch	154	2	156	130	13	143	2,138	124	2,262	98
Beluchistán	22	...	22	144	...	144	723	13	736	39
Total ...	225	531	756	375	703	1,078	4,972	6,398	11,370	110

* These figures also include the number branded in Káthiáwár.

Though the number of mares branded for covering by horse stallions rose from 225 in 1888-89 to 375 in the year under review, and the number of pony mares branded from 531 to 703, the results on the whole cannot be regarded as satis-

factory. The number of the former class of mares branded in Gujarát and the Deccan is particularly small, and it is explained that this result is due to a succession of indifferent seasons and consequent scarcity of fodder.

4. Of the aggregate total number (103) of horse stallions on the register 93 were more or less actively employed during the year, the rest being either stationed at the depôt for acclimatization or temporarily unfit for service. The average number employed at stud work during the year is stated to have been 85·66 as compared with 92·35 during 1888-89. The number (3,113) of branded mares covered by the stallions during the year under review was less by 169 than the number (3,282) covered in 1888-89. The decrease is accounted for by the reduction in the number of stallions and the rejection of many of the mares brought to the stands to be covered owing to their poor condition. The average number of mares covered by horse and pony sires is stated to have been 36·34 in 1889-90 as compared with 35·55 in 1888-89. It is noticed that the average was particularly and unsatisfactorily low at the stations noted on the margin. Mr. Grainger should have furnished an explanation in each of these cases as directed in paragraph 4 of Government Resolution No. 6640, dated 6th September 1889.

Bijápur.
Dhárwár.
Dhulia.
Shirpur.
Chopda.
Mirpur.
Lárkhána.
Beluchistán... Zál. Duki. Khakan.

5. The produce foaled in the year under review as the result of the coverings of 1888-89 is given as 419 colts and 350 fillies or a total of 769. The proportion which this figure bears to the number of mares covered in 1888-89 is 33·61 per cent., as compared with 37·32, the percentage returned in 1888-89. This falling-off is reported to be due to the weak state of a large number of the covered mares and their consequent incapacity to hold. The average number of produce foaled during 1889-90 per stallion employed at stud work in 1888-89 amounts to 11·83.

6. The number of remounts purchased for the Army and the Police during the year was 423, of which 104 were the produce of Government stallions. Of the remounts bought 28 were purchased for the Ahmednagar remount rearing depôt by Mr. Grainger who was directed to visit the Horse-show held at Málegaon in the Hyderabad State for this purpose. The Superintendent has also been requested to make similar purchases during the current year in Káthiáwár, but he points out now that compliance with this order will interfere with the performance of the ordinary duties of his appointment, as Káthiáwár is no longer included within the sphere of his operations, and suggests that the work should be entrusted to a Remount officer specially appointed for the purpose. Mr. Grainger should be requested to furnish Government with a copy of the instructions received by him directing him to proceed to Káthiáwár to purchase remounts, in order that if necessary the attention of the Government of India from whom presumably the instructions were received may be invited to the suggestion made by Mr. Grainger with a view to such orders being passed as may be deemed proper. The opinion of the Military Department should be requested on the suggestion made in paragraph 81 of the report regarding the advisability of deputing officers of the Remount and Transport Departments to attend Horse-shows for the purchase of young stock.

7. The number (72) of colts castrated during the year was less by 26 than the number (98) operated on in 1888-89 and by 16 than the average of the three preceding years. On the other hand, there was an increase in the expenditure on account of the castrators' establishment which rose from Rs. 1,494-4-0 in 1888-89 to Rs. 1,530-10-0 in 1889-90. It appears from paragraph 83 of the report that the present system has not proved successful and that Mr. Grainger hopes to secure more satisfactory results when the new Civil Veterinary Department is organized and Veterinary graduates are employed to perform the duty.

8. Of the 25 donkey stallions on the roll on 1st April 1889 two were destroyed, leaving 23, of which one was stationed in the Deccan and 22 in Sind and Cutch. To this number must be added one in Beluchistán, thus making a total of 24 in charge of the Superintendent of Horse-Breeding Operations during the year under review. Of the donkey stallions 13 are classed as very good, 8 as good and 3 as fair. Since the close of the year the only donkey stallion serving in the Presidency proper has been transferred to Sind to which Province mule-breeding is now entirely confined. The demand for good mules is steadily rising in Sind and the Superintendent expects to receive from Europe 7 more donkey stallions during the current trooping season.

9. The total number of mares covered by the donkey stallions in 1889-90 was 821 as compared with 890 in 1888, thus showing a decrease of 69, which is explained to be due to the reduction in the number of stallions and the inability of 4 of the stallions to cover owing to sickness or other causes. The average number of donkey stallions employed was 20·20 and the average number of mares covered by each stallion was 40·64 in the year under review.

10. The produce of Government donkey stallions foaled in the year under review is shown as 40 colt and 33 filly mules as compared with 62 and 41 respectively in the previous year. The proportion of produce foaled during 1889-90 to the number of mares covered in 1888-89 is given as 18·38 per cent., which is much lower than the percentage (27·24) returned for 1888-89.

11. Horse-shows were held during the year at Poona, Ahmedabad, Rájkot, Shikárpur and Sibi. The reports on all the shows held within the Presidency have been reviewed separately by Government. The total expenditure on these shows amounted to Rs. 20,520-1-3, of which Rs. 6,600 were contributed from Provincial Revenues, Rs. 1,000 by the Government of India, and the rest from Local Funds and other sources.

12. The total expenditure of the year under review amounted to Rs. 65,606-9-4 or Rs. 2,283-6-5 less than that (Rs. 67,889-15-9) of the previous year. It is stated that out of the total expenditure Rs. 17,443-0-3 were met from Local Funds, Rs. 5,949-0-11 were paid by the Government of India on account of the expenses incurred in Beluchistán, while the remainder (Rs. 42,214-8-2) is chargeable to Provincial Revenues. The latter amount, however, includes Rs. 1,000 on account of the contribution of the Government of India to the Sibi Horse-show and should therefore be reduced by that sum. The actual expenditure from Provincial Revenues thus amounts to Rs. 41,214-8-2 against Rs. 45,795-11-11 in 1888-89.

13. The total cost on account of supervision amounted to Rs. 13,613-8-7. Under the head "keep of stallions" the expenditure was Rs. 44,393-0-9, or, excluding Beluchistán, Rs. 38,443-15-10. The average cost of maintenance per horse stallion was Rs. 363, being higher than the cost incurred (Rs. 344) in 1888-89 and the average (Rs. 340) of the three preceding years taken together. The Superintendent of Horse-Breeding Operations attributes this increase to the "increased prices of gram and fodder during the year." Excluding Beluchistán, the average was highest in Sind and Cutch (Rs. 398) and lowest in Gujarát (Rs. 286). The average cost of maintenance of each donkey stallion amounted to Rs. 270 as compared with Rs. 260 in the previous year. There was thus an increase in cost during the year under review and not "a satisfactory decrease" as erroneously assumed by the Superintendent in paragraph 123 of his report.

14. In their review of the Administration Reports of the Horse-Breeding Department in the Bengal and Bombay Presidencies for the year 1888-89 the Government of India have remarked on the meagre results achieved in this Presidency in comparison with the expenditure incurred, and the Superintendent of Horse-Breeding Operations has been requested to furnish an explanation of the circumstances as to which the Government of India have found reason to

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complain. The present report is equally unsatisfactory, and His Excellency the Governor in Council trusts that the District officers and the Superintendent will co-operate to extend the popularity and usefulness of the Department and thus bring about better results.

J. De C. ATKINS,
Acting Under Secretary to Government.

To

The Superintendent, Horse-Breeding Operations,
The Commissioner, N. D.,
The Commissioner, C. D.,
The Commissioner, S. D.,
The Commissioner in Sind,
All Collectors, including the Collectors and Deputy Commissioners in Sind,
The Director of Land Records and Agriculture,
The Principal, Bombay Veterinary College and Hospital,
The Accountant General,
The Military Department of the Secretariat,
The Political Department of the Secretariat.
} With copies of the report.

The Secretary of State for India,
The Government of India.
} By letter.

No. of 1890.

Copy forwarded for information and guidance to